Habitat Stimulus Justification

U.S. Department of Interior and U.S. Forest Service

U.S. Fish and Wildlife Service (FWS)

Habitat Restoration Programs *$150 million/2030 jobs*

FWS operates a number of community-based voluntary habitat restoration programs that work in tandem to benefit federal trust species. These programs engage States, Tribes, governmental and non-governmental organizations, industry, and private landowners through targeted funding to improve fish and wildlife habitat. The Partners for Fish and Wildlife Program, National Fish Habitat Action Plan, Fish Passage, and Coastal Program, among others, currently have a backlog of projects and could quickly deliver funding for habitat restoration projects. The Partners for Fish and Wildlife Program provides financial and technical assistance to landowners to restore critical habitat on private lands. Grants awarded under the National Fish Habitat Action Plan support fish habitat conservation partnerships which result in restored and enhanced aquatic communities. The Fish Passage Program seeks to remove and bypass fish barriers to restore natural flows and fish migration. The Coastal Program works with partners to implement habitat restoration and protection projects that restore or enhance coastal wetland ecosystems. Together these programs have the potential to advance local partnerships to create immediate restoration jobs while providing long-term benefits to threatened and endangered species, migratory birds, inter-jurisdictional fish, certain marine mammals, and the habitats on which they depend.

North American Wetlands Conservation Act *$50 million/1015 jobs*

The North American Wetlands Conservation Act (NAWCA) is the most successful public-private initiative dedicated to restoring and enhancing wetland ecosystems in the United States. Since the Act's inception in 1989, NAWCA has conserved more than 20 million acres of critical wildlife habitat through more than 1600 on-the-ground projects. With wetland losses expected to exceed an average of 80,000 acres per year and given that more than half of all threatened and endangered species utilize wetland habitats during part of their life cycle, the need for increased wetland restoration projects is obvious. Stimulus funding will help to meet the nationwide demand for the program, which far exceeds available funding on an annual basis. Project implementation includes large-scale restoration which requires engineering and construction jobs at the local level. Given NAWCA's 20 year track record of strong public-private partnerships and successfully delivering habitat projects on the ground, it has the proven ability to begin work immediately.

State Wildlife Grants *$150 million/4052 jobs*

Congress required that each state and territory develop a State Wildlife Action Plan to conserve fish and wildlife, especially those that are rare and declining. Since the plans were approved in 2006, states have accumulated a backlog of projects that can be implemented within 1 year by local contractors. States have identified priorities such as wetland and stream restoration, invasive species control, reforestation, grassland and shrubland management etc. on both public and private lands. Nearly $400 million in shovel-ready habitat projects have been identified; an additional $150 million infusion into the State Wildlife Grants program would ensure that the highest priority projects would be implemented quickly. Projects are ready to go in California, Illinois, Florida, Texas, New Jersey, Wisconsin and 29 other states. States have existing infrastructure in place to administer and provide accountability for contracts and to ensure intended outcomes are met.

Refuge Operations & Maintenance *$483 million/6821 jobs*

FWS has an operations and maintenance backlog of over $3.5 billion for the National Wildlife Refuge System; from this, the Refuge System has identified projects totaling over $440 million for habitat restoration and invasive species control projects which could begin within 3 months. With these additional funds, the System can quickly hire and deploy teams from the local community and Youth Conservation Corps to eradicate invasive species and restore native habitat on refuge lands. Habitat work would include planting of native trees, grasses and other plants as part of comprehensive efforts to restore and improve up to 500,000 acres of habitat in the System. In addition, jobs would be created through construction and restoration of water management structures within the System. These efforts will enhance fish and wildlife habitat while providing a host of other benefits, including flood control, improving water quality, groundwater recharge, and carbon sequestration. Using existing priorities, FWS will contract local companies and workers to repair, construct and restore levees, dikes, pumps, valves and other systems. Lastly, the System also has identified 27 ready-to-go transportation projects totaling over $40 million in 23 states and Puerto Rico that will also foster private sector jobs. The

FWS has a proven track record of quickly and efficiently converting significant emergency funding into positive on-the-ground results.

Imperiled Species Recovery *$50 million/1015 jobs*

FWS is charged with leading or co-leading recovery efforts intended to save more than 1,300 endangered and threatened species of American wildlife and plants from going extinct. However, the GAO has reported that appropriated dollars have given the agency only enough funding to spend a mean of approximately $50,000 per species. In most years, agencies report spending less than $1,000 per species for an average of 20 percent of all the protected species. Multiple peer-reviewed studies have shown that the lack of funding hampers conservation efforts – wildlife receiving the least funding is most likely to be still in decline. Grant programs to support private land-focused efforts to conserve endangered species had a backlog of more than $28 million every year from 2004-2007, which increased further when programs received no funding in 2008. Accelerated funding for endangered species conservation and restoration projects would support businesses including fencing contractors, construction companies, fire professionals and local fire departments, engineering firms, and universities.

San Francisco Bay Restoration *$25 million/507 jobs*

The South Bay Salt Pond Restoration Project and other major habitat restoration projects in San Francisco Bay have as a goal the restoration of over 36,000 acres of tidal wetlands to provide habitat to 500 species of wildlife, provide wildlife-oriented public access and recreation, and provide critical flood management for numerous communities surrounding the Bay in the midst of rising sea levels. Six of the major restoration projects, totaling over 31,000 acres, are on state and federal property. Stimulus funding would allow restoration work to be accelerated at these sites through contracts with local engineering and construction companies. Project work would take place primarily on state and federal lands through cooperative efforts between state, federal and local governments, non-governmental organizations, and private interests. All work would provide significant environmental benefits, such as water quality improvement, increased flood protection and enhanced species habitat. Projects proposed have restoration plans and most permits in place, and some matching funding is available. As a result, these green projects can be underway quickly and will have an immediate effect on jobs and the economy.

Bureau of Land Management (BLM)

Healthy Lands Initiative *$55 million/850 jobs*

BLM has identified multiple landscape-level restoration projects throughout the West that will provide immediate jobs and long-term environmental benefits. Projects include stream and wetland improvements, invasive species management, reclamation of abandoned well pads and roads, and other conservation practices. As an example, the Carlsbad Field Office in New Mexico has nearly $25 million worth of native grass restoration projects that have already received National Environmental Policy Act (NEPA) clearance and are waiting for funding to begin. These projects, like other pending projects throughout the West, will enhance biological diversity and reestablish native plant and animal habitats while supporting rural and urban communities.

Riparian Habitat Restoration/Wildlife, Fisheries and T&E Species/Native Plants *$215 million/3040 jobs*

BLM manages more land, and more wildlife and fish habitat, than any other federal agency including half of the remaining habitat for the imperiled sage grouse and almost 15 million acres of prairie grasslands vital to many declining grassland dependent species. The agency has identified ready-to-go projects in several important program areas that will conserve and restore fish and wildlife habitat. Wildlife and Fisheries, Threatened and Endangered Species, and Riparian Habitat Restoration efforts would include projects that improve habitat quality and connectivity, especially within sagebrush and other sensitive habitat types; treat invasive plants and replant with native species; restore river and stream channel function and form; reconnect side channels; improve water quality and flow; and conduct inventory and assessments of critical riparian wetland areas. All of these activities will require local contractors and provide economic benefits for local communities. In addition, the Native Plant Materials Development program is becoming increasingly critical in ensuring that agencies have genetically appropriate materials to restore native plant communities on public lands in response to wildfire, invasive plants, climate change and other threats to native landscapes. This work would also foster local employment and include collection of endangered, sensitive and other native plant species and development of seed transfer zones and agricultural techniques for native plant crops.

BLM/Forest Service Abandoned Mine Reclamation *$400 million/5733 jobs*

The Abandoned Mine Land (AML) program seeks to eliminate or reduce dangers to public health, safety and the environment as a result of impacts related to abandoned hard rock mines on public lands. There are over 12,000 abandoned mines and approximately 80% need remediation. In addition, there are estimated to be a total of 100,000-500,000 abandoned sites yet to be fully characterized for remediation. Environmental problems from abandoned mines include: contaminated/acidic surface and ground water; and stockpiled waste rock and mill tailing piles. Further, surface runoff can carry AML-originated silt and debris down-stream, eventually leading to stream clogging. Sedimentation results in the blockage of the stream and can cause flooding of roads and/or residences and pose a danger to the public. Sedimentation may also cause adverse impacts on fish. The cost estimates to clean up abandoned hardrock mines range from $30 - $70 billion. An infusion of funding for the AML program would have substantial environmental benefits while stimulating jobs within local communities.

Office of Surface Mining and Reclamation (OSM)

Acid Mine Drainage Remediation *$200 million/4060 jobs*

OSM in the Interior Department administers a program through which fees are collected from coal mining and are dispersed to states and Tribes to eliminate human health threats from abandoned coal mines and clean up abandoned mining sites, including eliminating acid mine drainage leaking from abandoned mines. This type of pollution had killed or damaged thousands of miles of streams in coal country from Pennsylvania to Tennessee. Despite the reauthorization of this program in 2006 and eventual increase in funding for these projects, the states have a pressing backlog of projects that can be quickly implemented (within 1 year) and done by local contractors, putting people to work in economically hard hit communities in the Appalachian region. These projects include construction of passive treatment projects to capture and clean acid mine drainage before it enters streams, and active treatment facilities which add lime to streams over time buffer acidity and increase stream health. State water quality and fisheries agencies have existing infrastructure in place to administer and provide accountability for contracts, and work closely with the OSM and U.S. EPA to ensure projects have their intended outcomes.

Bureau of Reclamation (BOR)

Water Resources Conservation *$200 million/3120 jobs*

BOR is the largest water manager in the western United States and, as a result, has a significant impact on freshwater ecosystems in the West. While the Bureau's mission is focused on water supply, the agency has supplemental authorities to address endangered species and other environmental concerns related to its projects. BOR projects suffer from serious maintenance neglect with much of the water infrastructure managed by the agency in need of rehabilitation and repair. While we support investment in the Bureau's water supply projects, before investing funding in outdated infrastructure, it is important to seize the opportunity to evaluate whether existing infrastructure is meeting current needs and if not, to remove it. Furthermore, new investment in rehabilitation of water supply infrastructure affords an opportunity to identify modifications that both meet water supply needs and benefit the environment. Examples of environmentally beneficial projects the Bureau could fund include improving the efficiency of water delivery systems to provide water for environmental purposes, modifications to facilities for fish passage, removal of unused or derelict facilities and consolidation of irrigation or other diversions to provide environmental benefit, and restoration of riparian habitats to meet endangered species or other environmental goals.

National Park Service (NPS)

Operation and Maintenance *$913 million/23,000 jobs*

National park roads and facilities are threatened by old age and demanding public usage. The parks have ready-to-go transportation projects that would produce jobs and enable visitors to experience parks without damaging the natural, cultural, historical and archaeological resources inside the parks. In addition, many parks in both the Eastern and Western United States are heavily relied upon as critical transportation corridors to important yet remote areas. Many towns and businesses rely on adequately maintained parks for business and job creation, but the backlog of transportation-related infrastructure projects remains daunting. Currently, the National Park Service receives approximately $500 million less for repairing and renovating its roads and bridges, transit alternatives and associated front country trail than NPS estimates is needed annually. The NPS has estimated that road and trail repairs comprise 53% or $4.5 billion of the $8.4 billion infrastructure backlog facing the parks. In addition to road projects, NPS has identified economic opportunities in equipment replacement, trail maintenance, line item construction projects, facility maintenance, supplementary deferred maintenance, and high risk abandoned mine lands. These projects will address critical needs of the park service as well as create jobs in the private sector.

Natural Resource Stewardship *$130 million/1828 jobs*

NPS is responsible for sustaining diverse biological communities and improving the health of watersheds, landscapes, and marine and coastal resources and on park lands. NPS conducts these activities with the support of contractors and cooperators through its Natural Resources Management program. As part of the Centennial Initiative, NPS has identified shovel-ready projects designed to control invasive species, restore disturbed park lands, restore stream and surface waters to State and Federal water quality standards, and to improve the status of threatened and endangered species and species of management concern. Additional funding will also allow these types of projects to begin which will result in immediate jobs and will provide long-term improvements to the health of our National Park lands.

U.S. Forest Service

Vegetation and Watershed Management and Rangeland Restoration *$343 million/5300 jobs*

The Forest Service lacks adequate funding to adequately manage forest, range and grasslands in the United States. Stimulus funding would allow the agency to work with local organizations and contractors to restore and manage sustainable forests while improving water quality, wildlife habitat and ensuring a quality supply of wood and forest products. Funding is also needed to improve rangeland health through active post-fire and invasive species management, including the collection and use of native seeds.

Roads and trails (includes modifications for fish passage) *$217 million/3600 jobs*

An important management tool for the Forest Service includes the management, maintenance, reconstruction and decommissioning of roads and trails in the National Forest System. The agency has identified 2000 miles of road decommissioning projects for which the NEPA process is already complete, and has a backlog of $430 million in trail and road removal and repair work under the Legacy Roads and Trails Remediation Program. Stimulus funding would allow the Forest Service to immediately address this backlog of projects that will improve recreational access and enhance habitat conditions for fish and wildlife. This work would involve thousands of private, labor-intensive positions and provide increase revenues for rural communities across the United States.

Wildlife and Fisheries Habitat Restoration *$100 million/1600 jobs*

Our national forests and grasslands play an essential role in the conservation of our nation's wildlife and habitat. About 425 species listed under the Endangered Species Act and an additional 3,250 at-risk species are found on Forest Service lands. These lands encompass an amazing array of habitats, from alpine tundra to tropical rainforest, deciduous and evergreen forests, native grasslands, wetlands and various size streams, lakes, and marshes. National forests often contain significant headwaters and stream reaches important to freshwater creatures like fish, mussels and crayfish, a higher percentage of which are considered at-risk than other species. Under the Wildlife and Fisheries Habitat Management program, jobs would include restoration and improvements for streams and lakes, re-establishment of spawning areas for fish, eradication of invasive aquatic and terrestrial species, rehabilitation of wetland, fire-dependent, early-successional, prairie grassland, and other habitats, structural habitat improvements, and restoration of other habitats for threatened, endangered, and sensitive species.

Hazardous Fuel Reduction & Post-Fire Restoration *$1.2 billion/21,700 jobs*

More than 100 million acres of federal, state, and private lands are at high risk from damaging wildfire. Addressing the fire threat by removing overgrown brush and trees and restoring forest health at a national scale will stimulate local economies and put people to work in the wildland urban interface and in rural communities. Priority should be given to NEPA-ready projects that enjoy broad stakeholder support, including removal of overgrown brush and trees in the wildland urban interface, as an effective technique to jump start restoration of degraded ecological systems and to enable fire to play its natural role even as climate change extends the fire season. The National Fire Plan, with its sustained program of hazardous fuels reduction, has already spawned the beginning of a green industry to restore forest health and reduce wildfire threats. These existing industries range from community-based operations with chainsaws and trucks to large multi-state operations with mechanical harvesters and hundreds of employees. Under current programs, only 3 million acres of at risk forests can be treated each year and the backlog is growing faster than the treatments can keep up. Accelerated fuels treatment will require sustained funding to the federal land management agencies and states and capacity building to get the workforce and business infrastructure in place.

Department of Transportation

Federal Highway Administration

Culvert replacement (to benefit fish and wildlife) *$100 million/1560 jobs*

Fish-friendly culverts and bridges are needed to restore and protect stream function and reduce habitat fragmentation. Culverts also provide multiple environmental benefits such as improved fish and wildlife connectivity, sediment transport, and passage of woody debris. Nationwide, there are thousands of fish passage projects that are shovel-ready and will provide immediate construction jobs in local communities. In Washington County, Oregon alone it is estimated that there are 1,000 culverts that need to be repaired or replaced with an estimated price tag in excess of $25 million.

Wildlife Corridor Crossings *$100 million/1560 jobs*

Habitat fragmentation is among the most serious threats to species and biological diversity. Highways have divided wildlife habitat into smaller patches, reducing wildlife movement between core habitat areas for foraging, mating, and other life functions. Estimates indicate between 725,000 and 1.5 million wildlife-vehicle collisions annually, killing 200 motorists and injuring 29,000 more while costing $1 billion in property damage. Effective habitat connectivity measures have been shown to reduce wildlife-vehicle collisions by 80 to 100%. Loss of connectivity will be further exacerbated by global climate change, potentially altering wildlife home ranges and movement corridors. With stimulus funding, the transportation and natural resource sectors can work together to hire local contractors to design and construct habitat cores and corridors to allow for safer wildlife movement.

Federal Highway Culverts and Roads *$500 million/7800 jobs*

In the past, most road-stream crossing design has been aimed at minimizing costs, protecting the road and minimizing traffic interruptions. Less attention has been given to protecting stream functions, such as sediment transport, fish and wildlife passage, and the movement of woody debris. Many bridges and culverts disrupt these processes causing ecological degradation. The last transportation bill provided authorization and funding for retrofitting culverts on Forest Service lands to improve habitat connectivity. High Priority Project funding was allocated to Alaska for similar work. This initial investment for bridge and culvert retrofits should be expanded through existing funding authorities for road modifications on Forest Service, Fish and Wildlife Service and Park Service land.

U.S. Department of Agriculture

Natural Resource Conservation Service

Environmental Quality Incentives Program Wildlife-friendly Fencing *$40 million/812 jobs*

The Environmental Quality Incentives Program (EQIP) provides cost-share funding to private landowners for conservation practices, including wildlife-friendly fencing for birds and other wildlife. Historically, wire fencing has been used as the primary means of confining or excluding livestock. As a result, millions of miles of fence, primarily barbed wire, have been installed across the habitat ranges of sage grouse, prairie chicken, pronghorn, mule deer, white-tailed deer and other wildlife species. These species evolved in open habitats, generally free of vertical features or flight barriers. A significant amount of mortality for declining wildlife is attributable to collisions, with the mortality rate as high as 42 percent in some prairie chicken populations. The proportion of nesting females dying as a result of collisions may be causing problems with long-term population viability. Similarly, fencing can disrupt or prevent migration of mammals along traditional migration routes between summer and winter habitat. This funding is needed to expand efforts to eliminate a backlog of projects to replace current fencing with new fencing that allows animal movement and lowers mortality.

Wetlands Reserve Program Upland Habitat Enhancements *$25 million/507 jobs*

The Wetlands Reserve Program (WRP) is a widely popular voluntary conservation program that continues to provide benefits to farmers, ranchers, and other landowners throughout the U.S. It also provides profound public benefits. This program provides a critical tool in addressing the often-contentious issue of the existence of wetlands in an agricultural landscape by delivering an economically viable option that addresses the restoration and conservation of these wetlands. However, many wetlands restored through the WRP have little if any adjacent native prairies. Since many wetland-dependent species depend on extensive complexes of wetlands and native prairie, stimulus funding could be targeted at wetlands enrolled in the WRP that could be enhanced by restoring adjacent native-prairies. This funding would allow landowners to hire local contractors to assist with these restoration efforts on private land.

Small Watershed Dam Removal and Rehabilitation Program *$260 million/4200 jobs*

The Natural Resources Conservation Service has constructed dams and related structures through USDA watershed programs (P. L. 534 and P. L. 566) beginning in the late 1940s. Many of these structures are now past their engineered lifetimes. Aging dams can pose serious risks to lives and property in nearby communities. There is a critical need to address these risks in a way that also benefits our environment. Providing an additional $260 million to NRCS for dam repair, decommissioning and watershed restoration projects, including projects involving the restoration of wetlands and riparian habitat, will generate more than 4000 contracting jobs, including construction jobs, while also improving water quality and recreation opportunities in rural and other small communities. Legislation providing these additional resources should make clear that only projects that produce clear environmental benefits along with increasing public safety and providing economic benefits to communities should be funded.

Conservation Innovation Grants *$40 million/812 jobs*

Conservation Innovation Grants (CIG), authorized through the Environmental Quality Incentive Program (EQIP), stimulates the development and adoption of innovative conservation technologies and approaches through the support of pilot projects and field demonstrations. CIG grants are designed to develop community-based or market-based solutions to watershed or regional natural resource concerns. The grant program is open to all EQIP eligible projects and entities, including Native American Indian Tribe, States, and local units of government, non-profits, universities, and individuals. NRCS has projects that are ready to contract and is soliciting new projects this winter that will be ready to begin in the summer of 2009. The agency has only been fulfilling 30% of all applications to this program. Stimulus funding will address this backlog and should be directed toward labor- intensive projects to benefit the private sector workforce.

Cooperative Conservation Partnership Initiative (CCPI) *$100 million/2030 jobs*

The 2008 Farm Bill authorizes a new and exciting approach to conserving and improving our nation's soil, wildlife, and water resources on working agricultural landscapes. By combining and targeting existing conservation and resource improvement incentive mechanisms, the CCPI will allow both the private and public sector to tackle regional problems over a larger geographical area. This will increase both the technical efficiency and cost effectiveness of our resource conservation efforts. The Initiative is meant to engage the private sector in assisting with the implementation of this program on a larger scale than is currently envisioned. Increased funding for the Initiative will create at least 2000 jobs in the non-profit and for profit private sector by engaging these entities in project design and implementation of standard conservation practices. Specific types of expertise that will be required to implement an expanded CCPI will include agricultural engineers, equipment firms for project construction, wildlife biologists, ecologists, and administrative staff. Many projects are pending in a backlog due to a shortage of funding in past years and can be expedited through a streamlined administrative process.

Animal Plant Health Inspection Service

Invasive Outbreaks *$100 million/2030 jobs*

The Asian longhorned beetle threatens hardwood forests reaching from New England to Minnesota and in parts of the West. Sudden Oak Death is an invasive non-native forest pathogen that infects and kills oaks, hardwoods, and shrubs in the Pacific Coast states and across the East. Vulnerable forests support hardwood timber, maple syrup, and autumn foliage tourism industries, each of which represents a multi-million dollar contribution to the economy. Furthermore, these pests and blights threaten economic harm, job losses to the timber, agriculture, and nursery industries, plus state, national, and international quarantines. Asian longhorned beetle, in particular, also puts urban trees in cities across the country at risk; these trees have a total value of more than $600 billion. The experience in Chicago shows that the beetle can be eradicated when sufficient resources are deployed. Stimulus funding would allow for efforts to eradicate the extensive Asian longhorned beetle outbreak detected in Massachusetts in summer 2008 as well as complete eradication of previously known infestations in New York and New Jersey. Funds would also be used to hire workers to target Sudden Oak Death outbreaks in Southern Oregon and Northern California with work concentrating on early detection, host removal, and eradication efforts. Funding would allow hiring and equipping of hundreds of workers who would remove the several thousand infested trees, apply proven chemical treatments to tens of thousands of trees exposed to the insect, and carry out intensified surveys to ensure that no beetles escape.

Army Corps of Engineers

Everglades Restoration *$450 million/9135 jobs*

The protection and restoration of America's Everglades, once a web of marsh and prairie covering 4,000 square miles, is far behind schedule. Continued delays will further endanger the River of Grass and fresh drinking water supplies for South

Florida residents, which are under siege from increasing development and the growing threat of global warming. Funding these Everglades projects now will help save a national treasure and provide an immediate and substantial boost to the economy. Everglades restoration projects will create thousands of jobs in such industries as engineering, construction, nurseries, and material supplies. Several projects are authorized and ready for immediate construction including: Kissimmee River Restoration, C-111 South Dade, Stormwater Treatment Area 1 East/C-51, Modified Water Deliveries to Everglades National Park, Indian River Lagoon-South, Picayune Strand, and Site 1 Impoundment.

Louisiana Coast Restoration *$450 million/9135 jobs*

Ensuring an economically and environmentally sustainable coastal Louisiana is an urgent and vital task for the nation as a whole. A comprehensive protection strategy must include restoration of the "horizontal levees" formed by barrier islands and coastal wetlands. To restore this first line of defense, we must act quickly to get sediment into the marshes and rebuild land. Where the Mississippi River meets the Gulf of Mexico it forms a complex of deltaic estuaries that are ecologically unique and vitally important to the economic, environmental, and the security-related concerns of the gulf region and its citizens. The swamps and marshes that previously covered thousands of square miles of the Mississippi delta are disappearing at an alarming rate primarily because these estuaries have been isolated by levees and canals from receiving Mississippi River sediments while sea level rises and the land sinks. The loss of more than 2,000 square miles of wetlands through the years has led to a dramatic decrease in the natural protection afforded by wetlands and barrier islands to coastal cities such as New Orleans and Houma. The added threats posed by rising surface water temperatures, salt water intrusion, invasive species, and the increasing frequency and intensity of extreme weather events, all exacerbated by global warming, make clear the urgent need for coastal restoration and conservation as an integral portion of the rebuilding of New Orleans and the Gulf Coast. Funding of restoration will provide immediate economic stimulation, including creation of jobs, and will begin to put the gravely compromised Mississippi River delta wetlands back on a path to sustaining itself naturally and ensuring protection of Louisiana's traditional industries. Several restoration programs or projects have been identified as shovel-ready by both the State of Louisiana (FY09 'unmet restoration needs' transmitted to state legislature) and conservation organizations. Not only will these projects have an immediate and positive impact on employment in the region, but will also improve hurricane protection of our coastal communities and restore this rapidly degrading ecosystem.

Mississippi River Restoration *$150 million/3045 jobs*

With enactment of the 2007 Water Resources Development Act, Congress recognized the importance of the Mississippi River System by giving the U.S. Army Corps of Engineers a new, dual-purpose authority to integrate management of the river's habitats and navigation system in an unprecedented way. Funding the Implementation of the Navigation and Ecosystem Sustainability Program (NESP) and Environmental Management Program (EMP) will provide immediate economic stimulation while improving habitat for this corridor that is so critical to the economy of our nation. More than half of the fish and wildlife habitat created by the Mississippi River's backwaters and side channels could be lost by 2035 if the management of the river does not improve. This would lead to a catastrophic collapse of the nation's most productive and diverse inland fishery. Loss of river habitat also threatens a $6.6 billion river-recreation industry, which supports 143,000 jobs. (A River That Works and a Working River, The Upper Mississippi River Conservation Committee, January 2000.) Now is the time to build on the promise of the new authority for NESP and the existing authority for EMP by funding these programs in the stimulus bill through the Corps' construction general account. Not only will these projects have an immediate and positive impact on employment in the region, but we will realize tangible improvements to the health of our ecosystem. Projects implemented under this program undergo independent analysis and will be monitored to assure that project goals are being met and taxpayer dollars are being used wisely. Funding through the stimulus package for the Upper Mississippi will permit the Corps to accelerate existing contracts for ecosystem restoration projects.

Missouri River Recovery *$21 million/426 jobs*

Within the last 60 years, nearly two-thirds of the Missouri River - the nation's longest river - has been channelized or impounded to provide expanded navigation and flood control. These improvements have negatively impacting the ecosystem, resulting in the listing of a number of species. The Missouri River Fish and Wildlife Recovery Program funds comprehensive, basin-wide efforts to monitor and restore threatened and endangered species and their habitats. Currently, there are multiple projects totaling over $20 million that could be quickly implemented through contracts with local businesses. These restoration projects include sandbar creation, wetland restoration, levee and navigation infrastructure modification, and shoreline stabilization.

Section 1135 and Section 206 Continuing Authority Programs (CAPs) *$350 million/8005 jobs*

The Continuing Authority Programs (CAPs), which include Section 206, Aquatic Ecosystem Restoration, and Section 1135, Project modifications for Improvement of the Environment have been hamstrung by high demand, insufficient funding and a growing backlog of projects. As a result, the programs cannot implement new restoration projects and many existing projects have been languishing without funding. Many of the projects already in the program cue, some of which have received little or no funding in recent years, have completed large portions of the necessary design work and could quickly finalize designs and award contracts for construction. Because of the small nature of projects within these programs (< $ 5 million total Federal cost), a significant investment could clear the large backlog and quickly inject stimulus dollars into the economy.

Environmental Protection Agency

Long Island Sound Habitat Restoration *$70 million/1421 jobs*

The Long Island Sound is home to 125 species of birds including the endangered Piping Plover, and a host of significant habitats including 29 Audubon Important Bird Areas. With 10% of the United States population living within 50 miles of Long Island Sound, and contributing more than $8 billion annually to the regional economy, protecting this Nationally Significant Estuary is a high priority. As demand for habitat conservation and water quality improvement programs in the Sound have continued to outpace appropriations authorized through the Long Island Sound Stewardship and Long Island Sound Restoration Acts, funding through an economic recovery package would jumpstart restoration efforts in this important ecosystem. The funds would be used to improve water quality, restore tidal wetland habitat, improve public access, monitor water and living resources, and ensure a healthy and productive fishery. These efforts will benefit recreation and tourism while stimulating local employment in construction, engineering, materials, and other labor.

National Targeted Watershed Grants *$150 million/3045 jobs*

Addressing many of the Nation's water quality problems requires investment in innovative, sustainable and cost-effective approaches that do more with less and address a multitude of problems. The Targeted Watershed Grants program supports comprehensive watershed management strategies that result in tangible, measurable environmental results in a relatively short time frame. Targeted Watershed Grants support "green infrastructure" projects including the restoration and protection of wetlands and natural floodplains, stream stabilization and habitat enhancement, implementation of agricultural, and stormwater best management practices such as installation of green roofs and rain gardens. These approaches typically provide clean water and protect communities' water resources more cost-effectively than hard infrastructure alone. In addition to the clean water benefits, these green infrastructure projects create jobs across many sectors including site construction and engineering, landscaping, manufacturing of construction materials and other labor. Since its inception in 2003, demand for Targeted Watershed Grants has far exceeded available funding and there are numerous unfunded projects in need of financial assistance. Moreover, since proposals must be nominated by Governors or Tribal leaders, the level of quality of previously submitted applications is exceptionally high.

Great Lakes Watershed Restoration and Toxic Sediment Clean-up *$275 million/5582 jobs*

The Great Lakes are a national treasure and contain 95% of the surface freshwater in North America. There is a significant opportunity to restore wildlife habitat and improve water quality while enhancing recreational opportunities in the region. These efforts require construction work, materials and the engineering expertise within local communities and multiple projects could be initiated throughout the watershed within the next six months. Contaminated sediments in the Great Lakes hamper waterfront development, restrict recreational opportunities, and threaten public health. Since 2002, cleanups funded under the Great Lakes Legacy Act have removed nearly a million cubic yards of toxic sediments from rivers and harbors in the Great Lakes. These cleanups are creating jobs and stimulating economic development in Detroit, Cleveland, Milwaukee, Buffalo, Gary, Duluth and other urban areas. According to the Brookings Institution, cleaning up contaminated sediments is projected to increase coastal property values in the Great Lakes by $12 to $19 billion. With an infusion of federal funding, the Great Lakes states and other partners are prepared to implement many new cleanup projects in 2009.

Chesapeake Bay Habitat Restoration *$100 million/2030 jobs*

The Chesapeake Bay is the largest estuary in the United States and is home to thousands of species of plants, fish, and waterfowl, making it a critical commercial and recreational resource; however, excess nutrient and sediment pollution, coupled with habitat loss, threaten the sustained productivity of this national resource. Currently, less than one-third of

the Chesapeake's water quality goals are being met, negatively affecting aquatic habitat, commercial fisheries, and recreational opportunities. Sources of nutrient and sediment pollution are being addressed through the Small Watershed Grants Program and Innovative Nutrient and Sediment Reduction Grant Program. While funding available has increased steadily since 2005 to reflect the renewed commitment to on-the-ground implementation, demand for dollars and the local capacity to engage in on-the-ground restoration far outstrips available funding. In 2008, funding requests totaled $84.2 million for habitat restoration and conservation projects, which represents $64 million more than is available. These projects, which are ready to move forward, include stream and wetland restoration projects from the headwaters in NY, WV and PA to the coastal plain in MD and VA; installation of stormwater Best Management Practices such as rain gardens and green roofs in cities and suburban communities throughout the watershed, and implementation of conservation practices on working farms in rural communities from the Delmarva Peninsula to the Shenandoah Valley, to Central Pennsylvania. A typical grant budget for these projects typically includes nearly 50% for contractual services, usually to local environmental engineering firms, construction, landscape architects, and agricultural consultants, as well as payments directly to farmers and homeowners to implement conservation practices. In addition to the immediate economic stimulus through the jobs these grants support, these investment will help to sustain the economic productivity of the Chesapeake Bay that has been valued at over $678 billion (in 1987 dollars).

Puget Sound Habitat Restoration *$50 million/1015 jobs*

Puget Sound, Washington is one of the largest estuaries in the United States, with more than 5 million people living along its shorelines. It is habitat for 5 species of salmon, including the ESA listed Chinook, as well as coho, pink, sockeye, and chum salmon; Orca whales, and countless species of shorebirds and seabirds. The Puget Sound Partnership is a new agency created to assist the Environmental Protection Agency, along with other state and federal agencies to develop an Action Agenda to help protect and restore the water quality and habitat for Puget Sound. The Action Agenda provides critical data and a strategy for tackling threats to the waters in and around Puget Sound such as toxic chemicals, low dissolved oxygen levels, and loss of important shoreline habitat that supports numerous species of fish and wildlife, where at least 40 species are currently at risk and there has already been a decline of 10% in just the past several months. Restoring wetlands and forage fish habitat along shorelines will help to reverse the declines of the salmon species and the food they depend on. Cleaning up water quality and improving tributary flows and instream habitat will also benefit multiple species as well as protect human health. There are numerous state and federal agencies, non-profits and 14 Native American Tribes working together to coordinate their efforts to protect and restore Puget Sound while also providing for and protecting the future economic vitality and recreational opportunities of the marine and shoreline areas. With an infusion of federal funding, many high priority projects already identified and designed, could be implemented this coming year.

Section 319 Non-point Source Pollution Program *$300 million/6090 jobs*

While water and wastewater infrastructure and a strong point source control program have realized drastic water quality improvements, non-point source pollution remains a significant threat to many of the nation's water bodies. A dedicated investment in activities to address non-point sources of pollution would greatly improve water quality in the United States. Many of the practices that would be employed involve infrastructure development and modification and thereby stimulate jobs in local economies. For example, one practice with promise is the construction of two-stage ditches on agricultural land. These wider ditches slow the flow of water leaving agricultural landscapes, reducing the nutrient and sediment input to downstream water bodies. This type of work requires construction labor, materials, and equipment and could be fulfilled through a stimulus investment in the Section 319 non-point source pollution program. We recommend that this funding specifically focus on projects that require construction or other infrastructure modification.

Clean Water State Revolving Fund - Nearly 1,000 cities in the U.S. have combined sewer systems which spill raw sewage (CSOs) into rivers, lakes, and oceans during heavy rains. Experts predict that CSO discharges will increase as climate change brings more frequent intense storms. Reducing these untreated sewage discharges is a top clean water and public health priority, but many communities lack the necessary capital investment. The Government Accountability Office and the EPA estimate a gap in funding for wastewater, including CSOs, of at least $277 billion over the next 20 years. EPA has also warned that the lack of investment in wastewater infrastructure could undo many of the water quality improvements achieved through the Clean Water Act over the last 30 years. Specific funding for CSO reduction in the Clean Water State Revolving Fund can be used by communities for a variety of green and engineered solutions to reduce stormwater flows

into sewers and treatment plants. Stimulus funding for the Clean Water State Revolving Fund should specifically focus on CSOs in the watersheds of the Chesapeake Bay, Great Lakes, and Long Island Sound.

Department of Commerce

National Oceanic and Atmospheric Administration (NOAA)

Community-based Restoration Program and Open Rivers *$250 million/5075 jobs*

The nation's coastal areas are home to half of the U.S. population and generate nearly 60% of our GDP. Restoring ecological health in these areas supports the long-term sustainability of coastal communities and coastal economies. Restored landscapes provide new opportunities for businesses through recreational activities and commercial fishing industries while improving tourism. Working with partners, the Community-based Restoration Program and Open Rivers Initiative has the expertise to successfully implement a wide array of coastal restoration projects that result in near-term job creation and long-term economic growth by supporting natural resource-based economies. Over 100 projects have been identified for implementation with an estimated funding need of over $700 million. Several project examples include dam removal in Maryland, oyster restoration on Long Island, fish passage in Maine and restoration in Puget Sound. NOAA is well-prepared to deliver additional funding in these areas by competitively selecting projects based on ecological benefits, feasibility, cost-effectiveness, and socio-economic benefits, including meeting job creation criteria.

Pacific Coast Salmon Recovery Fund *$90 million/1827 jobs*

The PCSRF was created by Congress in FY 2000 to address the need to protect, restore, and conserve Pacific salmon and steelhead, and their habitat in the states of Washington, Oregon, California, Idaho, and Alaska. NOAA's National Marine Fisheries Service (NMFS) administers annual appropriations allocating PCSRF federal funds to the five states in the region as well as the Pacific Coast and Columbia River tribes. The states and tribal entities each have a Memorandum of Understanding with NMFS for distributing their PCSRF federal funds to projects for salmon and salmon habitat conservation and recovery. The PCSRF also leverages significant state-matching funds and in-kind contributions such as volunteer participation for salmon restoration projects. Through the PCSRF, the states and tribes have invested in priority activities for salmon recovery identified through state and federal limiting factor assessments and conservation planning. Stimulus funding specifically for restoration projects in the five states would provide new opportunities for businesses through recreational activities and commercial fishing industries and also improve tourism. NOAA and the states are well-prepared to deliver additional funding in these areas by competitively selecting projects based on ecological benefits, feasibility, cost-effectiveness, and socio-economic benefits, including meeting job creation criteria.

Marine Debris Program *$20 million/406 jobs*

In 2006, Congress enacted the Marine Debris Research, Prevention, and Reduction Act to identify, reduce, and prevent marine debris and its adverse impacts on the marine environment and navigation safety. This historic movement has launched a focused strategy to manage one of the most preventable forms of marine pollution. Despite their huge size and seemingly endless bounty, the world's oceans have been greatly impacted by human activity, and today the damaging effects of pollution and the fishing industry are evident. An unnecessary threat to marine health is marine debris, specifically old and discarded fishing gear which persists for years, causing thousands of marine animals to become entangled and die. However, recent projects focusing on the removal of tons of marine debris from waters of Puget Sound and the Northwestern Hawaiian Islands National Marine Monument have moved this issue into the spotlight. NOAA has identified the Hawaiian Islands, Alaska, Puget Sound, the Gulf of Mexico, Florida, Chesapeake Bay and the Gulf of Maine as priority hotspots for marine debris prevention and removal efforts. Manpower, particularly out-of-work fishermen and diving operations, is needed to adequately locate, remove and dispose of hundreds of tons of gear. Accelerated funding, as was intended by the Marine Debris Act, would significantly benefit our nation's coasts and bays, fish and wildlife, and navigational safety while empowering local businesses including heavy machinery operators and other laborers.

Coral Reef Habitat Restoration *$20 million/406 jobs*

Coral reef habitats are significant contributors to our nation's economy through tourism, science development and resource extraction and, for many of our island communities and territories, coral reef ecosystems are a primary source of nutrition particularly in tough economic times. Tragically, many of the coral reefs around U.S. territories like Puerto Rico

and the U.S. Virgin Islands have lost more than 50% of their coral cover in the last 20 years. In the Coral Reef Conservation Act of 2000, Congress recognized the importance of our nation's coral reefs and the need to provide protection and management for these systems across 14 federal agencies in the U.S. Coral Reef Task Force with NOAA and FWS as the lead federal agencies. Through this management regime, planning and project priorities have been identified to reverse decline of reefs in each state and territory. Projects range from installation of upgraded sewer systems and the restoration of water retention ponds to prevent sedimentation and polluted run-off, to establishment of coral farms and new techniques for coral restoration. Investments in these communities will have lasting effects both for the environment and the communities, including cost savings for areas with increased storms and reefs are natural protection walls for many of our island states, significantly decreasing rebuilding costs in the future. Stimulus funding for coral reef conservation will allow state and territorial management agencies to work with the private sector to build the infrastructure needed to prevent further decline and allow these important ecosystems to recover.

If a job estimate was not available from the agency, restoration jobs are calculated at 20.3 jobs per $1 million and construction jobs calculated at 15.6 jobs per $1 million. Bivens, J. *Updated Employment Multipliers for the U.S. Economy* (EPI, 2003)